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14. ABSTRACT

The submarines of the U.S. Navy have normally been utilized as independent strategic assets throughout the history of the force. This vision of submarine operations must change. As the military continues to shift to operations focused on joint capabilities, the submarine force must break from the closed, protective and risk averse culture of its past and push forward to increase its relevance to the operational commander. This break from the past must be embraced and led from the top. This paper begins with a brief background to provide the reader with the historical underpinnings of the problem as well as some insight into the development of today's submarine culture. It then moves on to develop the problems and highlights specific roadblocks that continue to prevent the problems from being addressed. From there it explores the possibility that the problem really isn't a submarine force leadership problem, but a problem rooted in the operational commander's utilization of submarines. It concludes with several recommendations for change.

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ENHANCING SUBMARINE OPERATIONAL RELEVANCE

A LEADERSHIP CHALLENGE

by

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LCDR USN

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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ABSTRACT

The submarines of the U.S. Navy have normally been utilized as independent strategic assets throughout the history of the force. This vision of submarine operations must change. As the military continues to shift to operations focused on joint capabilities, the submarine force must break from the closed, protective and risk averse culture of its past and push forward to increase its relevance to the operational commander. This break from the past must be embraced and led from the top. This paper begins with a brief background to provide the reader with the historical underpinnings of the problem as well as some insight into the development of today's submarine culture. It then moves on to develop the problems and highlights specific roadblocks that continue to prevent the problems from being addressed. From there it explores the possibility that the problem really isn't a submarine force leadership problem, but a problem rooted in the operational commander's utilization of submarines. It concludes with several recommendations for change.

CONTENTS

INTRODUCTION AND THESIS

A vital asset in the nation's arsenal, the nuclear attack submarine is a multi-mission platform that offers unique and potentially decisive capabilities to the operational commander in today's dynamic and often unpredictable battlefields. "The submarine's unique characteristics of stealth, endurance, and agility as well as its diverse capabilities make it an important contributor to forward presence, crisis response, deterrence, and reconstitution."[1] The changing nature of the threat and the continuing rapid advance of technology demands that the submarine contribution to national security evolves in response. It is a difficult problem that requires an agile and responsive force.

With operations consistently shrouded in secrecy, submariners have closely controlled and protected their inner workings. Today's submarine force continues to maintain a cultural mindset that has changed little from the tactically dominated nature that developed through the Cold War. The environment has changed however. With the Goldwater-Nichols Act of 1986, the services are legally and fiducially responsible to integrate their capabilities and develop a joint perspective in their operations. The submarine force is not there yet. In this paper, I will argue that today's submarine leadership must drive changes to alter its cultural mindset, embrace openness and soften its risk-averse tendencies to realize these responsibilities and enhance the submarine's relevance to the operational commander.

[1] Brian Thomas Howes, *Determining the Future of the US Submarine Force* (Monterey, CA: Naval Post Graduate School, 1992), 96.

In laying out my argument I will begin with a background to provide the reader with a context for the argument and its historical underpinnings. I will move on to develop the problems and highlight roadblocks that have continued to prevent the problems from being successfully addressed. This will be followed by a counterargument and refutation. I will end with my recommendations and a short conclusion.

BACKGROUND

Although the roots of U.S. submarine history began much earlier, many of the traditions of the service find their foundation in the performance of the storied fleet submarines of the World War II Pacific Fleet. Those familiar with the stories of these submarines may recall names such as Eugene Fluckey, Howard Gilmore, Dick O'Kane and Dudley "Mush" Morton. The exploits of these men and their submarine crews were vital to the allied victory over the Imperial Japanese Navy in World War II. Breaking from a generally risk-averse culture embodied in the submarine force of the men they relieved, these heroes were daring, innovative and highly effective. Contributing to this emerging culture was a submarine and Navy leadership that broke the stigma associated with unrestricted submarine warfare. The leadership was willing to foster and encourage their young commander's ideas and often gave them wide freedom in the tactical execution of their missions. A particularly poignant example of this is a conversation between Admiral Nimitz and Admiral Lockwood:

> **Lockwood**: "Well, Chester, there's only the *Barb* there, and probably no word until the patrol is finished. You remember Gene Fluckey?"
>
> **Nimitz**: "Of course. I recommended him for the Medal of Honor. You surely pulled him from command after he received it?"

Lockwood: "No. Before his fifth patrol he wormed a promise out of me that if *Barb* did well on that patrol, he could have a fifth patrol, a 'graduation' patrol."

Nimitz: "What is that?"

Lockwood: "He's worked up a theory of harassing when there are no ships around to sink. He loaded rockets."

Nimitz: "Rockets in a sub?"

Lockwood: "Yes, and one of the landing-ship-type launchers."[2]

In addition to testing deck-mounted rocket launchers during this patrol, Fluckey sent select members of his crew ashore in an unprecedented special operations mission in Patience Bay, off the coast of Karafuto, Japan. Under his direction, the small tactical team paddled ashore, wired a train track with explosive and successfully blew up a train and its associated track. While the particulars of this story may seem distant and disconnected from the current military environment, it demonstrates a submarine force starkly different from today's risk-averse, procedurally driven and nuclear power dominated community.

A review of the performance of the Imperial Japanese Navy submarine force in World War II reveals the impact of closed and ineffective operational leadership during the very war and same battlefield highlighted above. As with many of the first flight U.S. fleet submarine commanding officers (COs) of World War II, Japanese "unit COs obediently followed orders but rarely demonstrated initiative, cunning, or daring. Paucity of operational intent from operational leadership, combined with timid COs, rendered the entire submarine force impotent."[3] In the face of their continuing ineffectiveness in the Pacific theater, the Japanese submarines stuck with their general strategy of "using long

range submarines as a means to attrite advancing U.S. fleets,"[4] and did not have the decisive impact on the Japanese war effort that the admiralty had expected from its submarines. Fortunately for the allied efforts, the Japanese submarines failed to embrace the unrestricted submarine warfare that U.S. submarines used to cripple Japanese designs in the Pacific theater.

[2] Eugene B. Fluckey, *Thunder Below*! *The USS Barb Revolutionizes Submarine Warfare in World War II*, (Chicago: University of Illinois Press, 1992), 367.

Following World War II, the U.S. submarine force began to focus on the development of nuclear powered submarines. This massive and groundbreaking effort was spearheaded by the eccentric ADM Hyman G. Rickover. The task was a daunting one, as

the U.S. Navy is an organization of hulking inertia and a deeply ingrained culture. In their quintessential biography of Admiral Rickover, Polmar and Allen tell us how he "pushed the U.S. Navy into the nuclear realm – a revolution in naval matters – changing the nature of the U.S. Navy with respect to ship propulsion, quality control, personnel selection, and personnel training."[5] Rickover understood the dangers that came with nuclear power and he understood that there was little room for error, especially in the beginning as political, public, and military support was tenuous at best. Rickover "designed engineering excellence into the nuclear propulsion program as part of his strategy to wrest the hearts and minds of the submarine force from the irreverent diesel boat sailors who fought World War II on a first-name basis. He created a new type of naval officer, shifting from reliance on fuzzy seat-of-the-pants leadership and on-the-job training to a system of rigorous formal training, indoctrination, and personnel management centrally controlled by his office."[6] Rickover's efforts were thoroughly successful and his legacy and vision is still vibrantly strong today. "He infused into the Navy the idea of excellence. He had to. You don't just fool around with nuclear energy. He said that the standard would be excellence and he made that happen."[7]

[3] Donald D. Gerry, *Japanese Submarine Operational Errors in World War II: Will America's SSNs Make the Same Mistakes?* (Newport, RI: Naval War College, 1996), 7.

[4] Ibid., 2.

[5] Norman Polmar and Thomas B. Allen, *Rickover: Controversy and Genius, a Biography* (New York, NY: Simon and Schuster, 1982), 9-10.

[6] Michael J. Dobbs, "How the Twig is Bent: Developing Young Bubble Heads for the Challenges of Command," *United States Naval Institute Proceedings* 133, no. 6 (June 2007), http://www.usni.org/magazines/proceedings/archive/story.asp?STORY_ID=410 (accessed 6 March 2008).

[7] Polmar and Allen, *Controversy and Genius*, 316.

Unfortunately, another legacy of Admiral Rickover's revolution is a force led by

leaders developed in an environment dominated by procedural compliance, analytical thinking, and conservative decision making. These ingrained characteristics of submarine force leadership will come up again later in the paper as a key stumbling block in the submarine force's path to operational relevance.

IS THERE A PROBLEM?

A review of the vision of the submarine force, posted on the Commander, Naval Submarine Force webpage, illustrates the disconnect between today's submarine force leadership and the operational commander:

> The U.S. Submarine Force will remain the world's preeminent submarine force. We will aggressively incorporate new and innovative technologies to maintain dominance throughout the maritime battle space. We will promote the multiple capabilities of submarines and develop tactics to support national objectives through battle space preparation, sea control, supporting the land battle and strategic deterrence. We will fill the role as the Navy's stealthy, general purpose warship.[8]

This vision promulgated by the Navy's senior submariner contains no operational linkage. It is fully embedded in the tactical realm. It focuses on tactical innovation, tactical capabilities, tactical development, and the submarine's tactical role as the "Navy's stealthy, general purpose warship".

[8] Commander Naval Submarine Force, "Mission and Vision," Commander Naval Submarine Force, http://www.sublant.navy.mil/HTML/mission_vision.html (accessed 6 March 2008).

With strategic guidance such as this, it is not surprising that the submarine force remains on the periphery of the U.S. military transformation focusing on joint operations and the

operational commander.

Another example of the disconnect between the submarine force and the operational commander is the submarine command and control structure, specifically the assignment of operational control (OPCON) and tactical control (TACON) of submarines. OPCON is defined as:

> "The authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission."[9]

In most cases, submarine OPCON also includes responsibility for waterspace management (to prevent blue on blue engagement), prevention of mutual interference (traffic control to prevent U.S. and allied submarines from colliding), and the submarine broadcast, but these responsibilities can be delegated with TACON. TACON is defined as:

> "Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operation area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control."[10]

[9] Chairman, U.S. Joint Chiefs of Staff, *Joint Operations*, Joint Publication (JP) 3-0 (Washington, DC: CJCS, 17 September 2006), GL-24.

[10] Ibid., GL-31.

Outsiders familiar with this terminology and how it applies in the joint operational environment would likely expect that the operational commander would have OPCON of

all assigned forces, including submarines. This is not the case however. OPCON of submarines is retained by the Submarine Operating Authority (SUBOPAUTH). The SUBOPAUTH is usually the type commander or a direct subordinate, not a member of the operational commander's staff. This construct worked well in the past, as the submarine force focused on the submarine as an independent national strategic asset. This command and control construct continued throughout the duration of the Cold War and remains in place today.

Withholding OPCON from the operational commander limits a submarine's usefulness and can result in problems, as ADM Sandy Woodward of the Royal British Navy discovered in the Falkland Islands War of 1982. Although it seems that it would have made "more sense that the submarines would have been under his command locally in case it became necessary to deal with a quickly changing set of circumstances which required very early action,"[11] the British chose a method of control similar to the U.S. Navy construct. The three submarines in the Falklands theater were under the OPCON of the British submarine type commander, who was home in England, vice the on-scene task force commander, Admiral Woodward. Faced with a potential pincer movement from Argentine naval forces, it was only Admiral Woodward's timely and shrewd manipulation of the rules of engagement process and command and control structure that prevented his carrier battle group from being subjected to a more significant threat from the Argentine forces.

[11] Sandy Woodward with Patrick Robinson, *One Hundred Days: The Memoirs of the Falklands Battle Group Commander* (Annapolis, MD: Naval Institute Press, 1992), 122.

A final example of a disconnect between the submarine force and the operational level of war can be seen in the lack of operational perspective provided in the training of today's

prospective COs, Executive Officers (XOs), and Department Heads (DHs). Recent force problems drove changes that significantly increased the rigor of the tactical training provided in these courses, but each continues to provide little of operational relevance. While developing this tactical expertise is appropriate in that the students will be responsible for the tactical employment of the submarine, it is also a missed opportunity for leadership to build the groundwork for an appreciation of the operational art associated with submarine employment. The result is an officer corps with limited exposure to the operational level of war. It is hard to imagine successful integration of submarines into the operational picture without officers that have a basic understanding of the principles of operational warfare.

ROADBLOCKS

So why hasn't the submarine force addressed these issues yet? The reasons are rooted in the submarine force's nuclear nature which has fostered a tightly controlled risk-averse culture shrouded in secrecy and unfriendly to change.

Polmar and Allen illustrate that submarines have, "in addition to the traditional operational and administrative chains of command, a third chain of command. This chain of command encompasses the ship's nuclear power plant operations. As the Director of Naval Nuclear Propulsion (NR), Rickover set up a chain of communication that superseded both traditional chains of command. In his Atomic Energy Commission hat, as the man responsible for nuclear safety, all commanding officers of nuclear ships reported directly to him."[12]

[12] Polmar and Allen, *Controversy and Genius*, 328.

These lines continue to exist today and NR maintains the power to take a nuclear powered U.S. Navy warship off the line if dissatisfied with its performance in operating the nuclear power plant. This power, combined with fact that the Director of NR is a four-star admiral while the senior submariner is a three-star admiral, results in a submarine force beholden to the oversight of NR. Within the current structure, this is an often unfortunate reality that the operational commander must acknowledge and understand.

Change in itself is inherently risky. The submarine force has developed a risk-averse nature rising from the engineering-centric training and performance measurements. Michael Dobbs, a former submarine CO said, "The emphasis on engineering over war fighting and mariner skills during the submarine officer's formative years can ingrain an overly strong reliance on analytical decision-making that often lasts an entire career. Engineers are indoctrinated into a mindset where facts, precedent, and strict adherence to procedures dominate intuition, common sense, and what feels right."[13] When forced to operate outside these bounds, submariners often become uncomfortable. These are traits that don't necessarily translate well into the operational level of war as the process generates scientists, not artists. Giving up control of submarines to a non-nuclear trained officer, outside of the submarine community, would place submariners into this realm of art vice science, a realm in which its leaders must first become comfortable.

[13] Dobbs, "How the Twig is Bent".

The submarine force has been known as the "silent service" for decades and this is embedded in its protectionist and closed cultural values. "For years the submarine service has been shrouded in secrecy. The need for secrecy and reticence to discuss operations was a necessary fact during the Cold War. The need for the same level of secrecy is no longer apparent in the post-Cold War era and may in fact harm the submarine force by preventing few outside the Navy to truly understand the capabilities and potential of the submarine as an instrument of national security."[14] This secrecy reduces the operational relevance and usefulness of submarines to the operational commander because their operations are well understood by very few people outside of the submarine force.

[14] Howes, *Determining the Future of the US Submarine Force*, 85.

COUNTERARGUMENT

A recent article by a few Naval War College professors states, "Since the end of the Cold War, the submarine force has been a leader among U.S. military war fighting communities in transforming itself to remain relevant against militant Islamist extremism and other emerging threats."[15] Taken by itself, this seems to be an indicator that the submarine force is quite healthy and performing well. Why fix what isn't broken? If there is a problem, is it with the submarine force leadership or with the operational commander? Submarines are unique assets whose operations are somewhat foreign and misunderstood by many operational commanders. Because of the inherent difficulties such as communications, waterspace management and prevention of mutual interference, doesn't it make sense that submarine operations are controlled by submariners? Shouldn't the operational commander accept this as the cost of doing business? I believe the answer to these questions is clearly "No". When submarines make it difficult for the operational commander to employ them as he desires, there is a natural tendency to substitute other assets that are more easily tasked, leaving submarines on the sidelines even though they may be the best tool for the task. Submarine force leadership has a responsibility to provide the operational commander with a user friendly platform that he can use to accomplish his objectives. It is a worthy and accomplishable goal.

[15] Gabriel Collins et al., "Chinese Evaluations of the U.S. Navy Submarine Force," *Naval War College Review* 61, no. 1 (Winter 2008): 68.

RECOMMENDATIONS

What can the submarine force leadership do to address the lack of operational understanding and focus in the force? To begin the process, the force must recognize that the problem exists. After recognition, I think there are three keys to success. First, develop a base level of operational knowledge within the officer ranks. Second, give up a measure of control of submarine operations by allowing OPCON to routinely shift to the operational commander. Finally, soften the protective nature of the submarine force by attacking the roots of its risk-averse culture.

In an effort to broaden the submarine force's operational level of knowledge, submarine leadership must place more emphasis on ensuring their officers are exposed to "big navy" and joint operations early and often. In general, the status quo is that the best and brightest of submarine junior officers are sent to be instructors in the nuclear power training pipeline after their initial sea tour, reinforcing their already well ingrained engineering background. Sending them to an operational staff billet early in their career would enhance the professional knowledge of the submarine officer corps, and this on-the-job training would provide a foundation for further development in revamped career milestone training schools for COs, XOs, and DHs as well. It would also expose other services and communities to the capabilities that submarines bring to the fight and develop an understanding of how to incorporate submarines into the operational planning process.

With knowledgeable submariners embedded in the staffs, the focus can shift to improving the usefulness of the submarine to the operational commander. OPCON is at the heart of the problem from the operational commander's perspective. Submarine leaders must overcome the force's risk-averse nature and cultural hesitance to give up

control. Leadership needs to embrace the idea that the operational commander requires the ability to directly task and integrate assigned submarines into the war fight as he sees fit.

"With the shift in emphasis to the regional or littoral conflict as well as operating jointly, the submarine must operate in an environment that requires frequent communication and a great deal more coordination."[16] With the exception of those submarines independently tasked as national strategic assets, the time has come to integrate OPCON into the applicable combatant commander or joint task force commander's staff. The operational commander must have full control to flexibly deploy and employ all assets available to him in today's dynamic threat environment. Facilitating this integration is the responsibility of the submarine force, not the operational commander.

The submarine force's preoccupation with being "good nukes" is the bedrock of its risk-averse culture and is at the heart of its protective controlling nature. For the past 60 years, the force has trained tomorrow's leaders to be nuclear engineers first, naval tacticians and strategists second. The naval nuclear propulsion program has a well earned reputation of producing the finest nuclear power plant operators and supervisors in the world. It is vital that submarines continue to maintain their excellence in this arena, as nuclear power is unforgiving if operated carelessly by poorly trained operators.

[16] T.W. Meier, *Joint Task Force Commander and Operational Control of Attack Submarines* (Newport, RI: Naval War College, 1997), 10.

However, as the common submarine saying goes, a well operated reactor does little good when the submarine is on the bottom. Employing submarines as instruments of national power must be the submarine force's primary mission, not nuclear power plant operations.

Building a good nuclear operator is necessarily different than building an operational artist, but the two don't have to be mutually exclusive. The submarine force's problem today is that it continues to excel in the nuclear aspect and ignores the operational part. Submarine force leadership must drive doctrinal as well as career-long personnel efforts to establish and maintain a balance between safe reactor plant operations and operationally savvy war fighters.

CONCLUSION

First and foremost, submarine force leadership must embrace a new mindset that breaks with the culture that has developed over the past 60 years and promote the innovation, leadership and ingenuity that started with its World War II submarine heroes. Significant change in any organization is difficult. In this case, change is especially difficult because the U.S. submarine force has been highly successful by numerous measures, and has maintained its position as the world's most dominant submarine force over several decades. That doesn't mean that it can't be better; especially when it comes to the mission support it provides to the operational commander. Historical precedent, the nature of submarine operations, and the development of nuclear power have each contributed to the protective and risk-averse culture that exists today. Successful change will require leadership from the top embodied in action not words.

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